

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (original) A method for managing deposits within a pump mechanism by introducing fluid suitable for dissolving, diluting or otherwise disengaging deposits which have accumulated on the internal working surfaces of the pump, the method comprising the steps of:

- (a) monitoring the performance of the pump;
- (b) receiving process data from, or associated with, a tool being evacuated by the pump;
- (c) calculating fluid flow characteristics required to compensate for the accumulation of deposits on the internal working surfaces of the pump based on the monitored performance and the process data; and
- (d) introducing fluid into the pumping mechanism in accordance with the calculated characteristics.

2. (currently amended) The A-method according to Claim 1; wherein the fluid is comprises a halogen.

3. (currently amended) The A-method according to Claim 2; wherein the fluid is comprises a fluorinated liquid or gas.

4. (currently amended) The A-method according to Claim 1; wherein the fluid is comprises inert purge gas.

5. (currently amended) The A-method according to Claim 4; wherein the purge gas is delivered at an elevated pressure.

6. (currently amended) The A-method according to Claim 5; wherein the purge gas is delivered at a pressure in excess of 2000 mbar.
7. (currently amended) The A-method according to Claim 2 ~~or Claim 3~~; wherein a second fluid is also introduced to the pump, this second fluid being inert purge gas.
8. (currently amended) The A-method according to Claim 7; wherein the first and second fluids are introduced at different locations in the pump.
9. (currently amended) The A-method according to Claim 8; wherein the first fluid is directed to the internal working surfaces of the pump.
10. (currently amended) The A-method according to Claim 8 ~~or Claim 9~~; wherein the second fluid is directed towards sealing components of the pump.
11. (currently amended) The A-method according to Claim 7; wherein the second fluid is introduced after injection of the first fluid has terminated.
12. (currently amended) The A-method according to ~~any preceding~~ Claim 1; wherein the fluid flow characteristics are ~~at least one of~~ selected from the group of flow characteristics consisting of flow rate, temperature, pressure and duration of injection.
13. (currently amended) The A-method according to ~~any preceding~~ Claim 1; wherein the fluid is introduced during normal operation of the pump.
14. (currently amended) The A-method according to Claim 13; wherein the fluid is introduced into an exhaust section of the pump.
15. (currently amended) The A-method according to ~~any of~~ Claims 1 to 12; wherein the fluid is introduced when the pump is off line.

16. (currently amended) ~~The A-pump according to any preceding~~ Claim 1, wherein the monitoring step comprises recording ~~at least one of the group of~~ pressure at the exhaust of the pump ~~and motor current~~.

17. (currently amended) A pumping arrangement comprising:
a vacuum pump having a rotor element and a stator element, and at least one fluid port;
means for monitoring the performance of the pump;
means for receiving process data from, ~~or associated with~~, a tool ~~being adapted to be~~ evacuated by the pump;
means for calculating fluid flow characteristics required to compensate for the accumulation of deposits on the internal working surfaces of the pump based on the monitored performance and the process data; and
means for introducing into the pump via ~~said the~~ at least one port and in accordance with the calculated characteristics, fluid for acting on deposits located on the element surfaces to enable ~~said the~~ deposits to be removed therefrom.

18. (new) The method according to Claim 3 wherein a second fluid comprising an inert purge gas is introduced to the pump.

19. (new) The method according to Claim 9 wherein the second fluid is directed towards sealing components of the pump.

20. (new) The pump according to Claim 1 wherein the monitoring step comprises recording motor current of the pump.